



SEQUENCE LISTING

<110> Cadet, Patrick
Stefano, George B.

<120> Opiate Receptors

<130> 09598-006001

<140> US 10/080,917
<141> 2002-02-22

<150> US 60/270,479
<151> 2001-02-22

<150> US 60/336,677
<151> 2001-12-05

<160> 29

<170> FastSEQ for Windows Version 4.0

<210> 1
<211> 81
<212> DNA
<213> Homo Sapiens

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60
81

<210> 2
<211> 26
<212> PRT
<213> Homo Sapiens

<220>
<223> Peptide fragment

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<400> 2
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Gln Lys Pro Val Leu Leu Trp Phe Cys Asp
      20          25

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<210> 3
<211> 262
<212> DNA
<213> Homo Sapiens .

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<222> (1)...(262)
<223> n = A,T,C or G
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 gcaagatatt cacagaaaat tagcatcata gaaaaaaaaan nnaaaaaaaaaaaaaaa 180
 ncatgtcgcc cgcctcgccaa acatcgaa tcgagcatgc atctaggcg gccaattccg 240
 cccctctccc cccnngcnnt tt 262

<210> 4
 <211> 945
 <212> DNA
 <213> Homo Sapiens

<400> 4
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 agtaccctgc ccttccagag tgtgaattac ctaatggaa catggccatt tggAACATC 120
 ctttgcaga tagtgcattc catagattac tataacatgt tcaccagcat attcaccctc 180
 tgcaccatga gtgttgcattc atacattgtc gtctgcacc ctgtcaaggc ctttagattc 240
 cgtactcccc gaaatgccaa aattatcaat gtctgcact ggatcctctc ttcagccatt 300
 ggtcttcctg taatgttcat ggctacaaca aaatacaggc aaggttccat agattgtaca 360
 ctaacattct ctcattccaa ctggtaactgg gaaaacctgc tgaagatctg tgtttcatc 420
 ttcgccttca ttatgccagt gctcatcatt accgttgct atggactgat gatcttgcgc 480
 ctcaagagtg tccgcattgt ctctggctcc aaagaaaagg acaggaatct tcgaaggatc 540
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 tacgtcatca ttaaagcctt ggtaacaatc ccagaaacta cggtccagac tgtttcttgg 660
 cacttctgca ttgctctagg ttacacaaac agctgcctca acccagtccct ttatgcattt 720
 ctggatgaaa acttcaaacg atgcttcaga gagttctgtt tcccaacctc ttccaaacatt 780
 gagcaacaaa actccactcg aattcgtag aacactagag accacccctc cacggcaat 840
 acagtggata gaactaatca tcagaattat tatataattc atagatgtt ctgcaataacc 900
 cctcttattt ctcaaaagcc agtcttgctc tggttctgtt attaa 945

<210> 5
 <211> 314
 <212> PRT
 <213> Homo Sapiens

<400> 5
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 Gly Thr Trp Pro Phe Gly Thr Ile Leu Cys Lys Ile Val Ile Ser Ile
 35 40 45
 Asp Tyr Tyr Asn Met Phe Thr Ser Ile Phe Thr Leu Cys Thr Met Ser
 50 55 60
 Val Asp Arg Tyr Ile Ala Val Cys His Pro Val Lys Ala Leu Asp Phe
 65 70 75 80
 Arg Thr Pro Arg Asn Ala Lys Ile Ile Asn Val Cys Asn Trp Ile Leu
 85 90 95
 Ser Ser Ala Ile Gly Leu Pro Val Met Phe Met Ala Thr Thr Lys Tyr
 100 105 110
 Arg Gln Gly Ser Ile Asp Cys Thr Leu Thr Phe Ser His Pro Thr Trp
 115 120 125
 Tyr Trp Glu Asn Leu Leu Lys Ile Cys Val Phe Ile Phe Ala Phe Ile
 130 135 140
 Met Pro Val Leu Ile Ile Thr Val Cys Tyr Gly Leu Met Ile Leu Arg
 145 150 155 160
 Leu Lys Ser Val Arg Met Leu Ser Gly Ser Lys Glu Lys Asp Arg Asn

165	170	175
Leu Arg Arg Ile Thr Arg Met Val	Leu Val Val Val Ala Val Phe Ile	
180	185	190
Val Cys Trp Thr Pro Ile His Ile Tyr Val Ile Ile Lys Ala Leu Val		
195	200	205
Thr Ile Pro Glu Thr Thr Phe Gln Thr Val Ser Trp His Phe Cys Ile		
210	215	220
Ala Leu Gly Tyr Thr Asn Ser Cys Leu Asn Pro Val Leu Tyr Ala Phe		
225	230	235
Leu Asp Glu Asn Phe Lys Arg Cys Phe Arg Glu Phe Cys Ile Pro Thr		240
245	250	255
Ser Ser Asn Ile Glu Gln Gln Asn Ser Thr Arg Ile Arg Gln Asn Thr		
260	265	270
Arg Asp His Pro Ser Thr Ala Asn Thr Val Asp Arg Thr Asn His Gln		
275	280	285
Asn Tyr Tyr Ile Ile His Arg Leu Cys Cys Asn Thr Pro Leu Ile Ser		
290	295	300
Gln Lys Pro Val Leu Leu Trp Phe Cys Asp		
305	310	

<210> 6
<211> 1431
<212> DNA
<213> Homo Sapiens

<400> 6

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ggaacccgaa	aagtctcggt	gctctggct	acctcgcaca	gccccggcc	cccggccg	180
agtaccatgg	acagcagcgc	tgccccacg	aacgccagca	attgcactga	tgccttggcg	240
tactcaagtt	gctccccagc	accagcccc	ggttccctggg	tcaacttgtc	ccacttagat	300
ggcaacctgt	ccgaccatg	cggtccgaac	cgcaccgacc	tggcgggag	agacagcctg	360
tgcctccga	ccggcagtcc	ctccatgatc	acggccatca	cgatcatggc	cctctactcc	420
atcggtg	tggtggggct	cttcggaaac	tccctgtca	tgtatgtat	tgtcagatac	480
accaagatga	agactgcac	caacatctac	atttcaacc	ttgctctggc	agatgcctta	540
gccaccatgt	ccctgccctt	ccagagtgt	aattaccaa	tggAACATG	gccatttgg	600
accatcctt	gcaagatagt	gatctccata	gattactata	acatgttcac	cagcatattc	660
accctctgca	ccatgatgt	tgcatac	attgcagtct	gccaccctgt	caaggcctta	720
gattccgt	ctccccgaaa	tgcAAAATT	atcaatgtct	gcaactggat	cctctttca	780
gccattgg	ttcctgtat	gttcatggct	acaacaaaat	acaggcaagg	ttccatagat	840
tgtacactaa	cattctctca	tccaaacctgg	tactggaaa	acctgctgaa	gatctgttt	900
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ttgcgcctca	agagtgtccg	catgtctct	ggctccaaag	aaaaggacag	aatcttcga	1020
aggatcacca	ggatgggtct	gggtgggtgt	gctgtgtca	tgcgtctgt	gactccatt	1080
cacatttacg	tcatcatcaa	agcctgggtt	acaatcccag	aaactacgtt	ccagactgtt	1140
tcttggcact	tctgcattgc	tctaggttac	acaaacagct	gcctcaaccc	agtcctttat	1200
gcatttctgg	atgaaaactt	caaacgatgc	ttcagagagt	tctgttatccc	aacctttcc	1260
aacattgagc	aacaaaactc	cactcgaatt	cgtcagaaca	ctagagacca	cccctccacg	1320
gccaatacag	tggatagaac	taatcatcag	aattattata	taattcatag	atgttgctgc	1380
aataccctc	ttatTTCTCA	aaagccagtc	ttgctctgg	tctgtgatta	a	1431

<210> 7
<211> 476
<212> PRT
<213> Homo Sapiens

<400> 7

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 Arg Lys Glu Ala Ala Glu Ala Leu Gly Thr Arg Lys Val Ser Val Leu
 35 40 45
 Leu Ala Thr Ser His Ser Gly Ala Arg Pro Ala Val Ser Thr Met Asp
 50 55 60
 Ser Ser Ala Ala Pro Thr Asn Ala Ser Asn Cys Thr Asp Ala Leu Ala
 65 70 75 80
 Tyr Ser Ser Cys Ser Pro Ala Pro Ser Pro Gly Ser Trp Val Asn Leu
 85 90 95
 Ser His Leu Asp Gly Asn Leu Ser Asp Pro Cys Gly Pro Asn Arg Thr
 100 105 110
 Asp Leu Gly Gly Arg Asp Ser Leu Cys Pro Pro Thr Gly Ser Pro Ser
 115 120 125
 Met Ile Thr Ala Ile Thr Ile Met Ala Leu Tyr Ser Ile Val Cys Val
 130 135 140
 Val Gly Leu Phe Gly Asn Phe Leu Val Met Tyr Val Ile Val Arg Tyr
 145 150 155 160
 Thr Lys Met Lys Thr Ala Thr Asn Ile Tyr Ile Phe Asn Leu Ala Leu
 165 170 175
 Ala Asp Ala Leu Ala Thr Ser Thr Leu Pro Phe Gln Ser Val Asn Tyr
 180 185 190
 Leu Met Gly Thr Trp Pro Phe Gly Thr Ile Leu Cys Lys Ile Val Ile
 195 200 205
 Ser Ile Asp Tyr Tyr Asn Met Phe Thr Ser Ile Phe Thr Leu Cys Thr
 210 215 220
 Met Ser Val Asp Arg Tyr Ile Ala Val Cys His Pro Val Lys Ala Leu
 225 230 235 240
 Asp Phe Arg Thr Pro Arg Asn Ala Lys Ile Ile Asn Val Cys Asn Trp
 245 250 255
 Ile Leu Ser Ser Ala Ile Gly Leu Pro Val Met Phe Met Ala Thr Thr
 260 265 270
 Lys Tyr Arg Gln Gly Ser Ile Asp Cys Thr Leu Thr Phe Ser His Pro
 275 280 285
 Thr Trp Tyr Trp Glu Asn Leu Leu Lys Ile Cys Val Phe Ile Phe Ala
 290 295 300
 Phe Ile Met Pro Val Leu Ile Ile Thr Val Cys Tyr Gly Leu Met Ile
 305 310 315 320
 Leu Arg Leu Lys Ser Val Arg Met Leu Ser Gly Ser Lys Glu Lys Asp
 325 330 335
 Arg Asn Leu Arg Arg Ile Thr Arg Met Val Leu Val Val Val Ala Val
 340 345 350
 Phe Ile Val Cys Trp Thr Pro Ile His Ile Tyr Val Ile Ile Lys Ala
 355 360 365
 Leu Val Thr Ile Pro Glu Thr Thr Phe Gln Thr Val Ser Trp His Phe
 370 375 380
 Cys Ile Ala Leu Gly Tyr Thr Asn Ser Cys Leu Asn Pro Val Leu Tyr
 385 390 395 400
 Ala Phe Leu Asp Glu Asn Phe Lys Arg Cys Phe Arg Glu Phe Cys Ile
 405 410 415
 Pro Thr Ser Ser Asn Ile Glu Gln Gln Asn Ser Thr Arg Ile Arg Gln
 420 425 430
 Asn Thr Arg Asp His Pro Ser Thr Ala Asn Thr Val Asp Arg Thr Asn
 435 440 445
 His Gln Asn Tyr Tyr Ile Ile His Arg Leu Cys Cys Asn Thr Pro Leu

450	455	460
Ile Ser Gln Lys Pro Val Leu Leu Trp Phe Cys Asp		
465	470	475

<210> 8
<211> 1245
<212> DNA
<213> Homo Sapiens

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ctgtccgacc catgcgggcc gaaccgcacc gacctggcg ggagagacag cctgtgcct	240
ccgaccggca gtccctccat gatcacggcc atcacatca tgccctcta ctccatcgt	300
tgcgtggcgg aaaccttcgt gtcatgtatg tgattgtcag atacaccaag	360
atgaagactg ccaccaacat ctacatttc aaccttgctc tggcagatgc cttagccacc	420
agtaccctgc ccttccagag tgtgaattac ctaatggaa catggccatt tggaaaccatc	480
ctttgcaaga tagtcatctc catagattac tataacatgt tcaccagcat attcaccctc	540
tgcaccatga gtgttgcattc atacatttgc gtcgtccacc ctgtcaaggc cttagatttc	600
cgtactcccc gaaaatgc当地 aattatcaat gtctgcaact ggatcctctc ttcaaggcatt	660
ggtcttcctg taatgttcat ggctacaaca aaatacaggc aagggttccat agattgtaca	720
ctaacattct ctcatccaaac ctgttgcattc gaaaacctgc tgaagatctg tgtttcatc	780
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tacgtcatca ttaaagcctt ggttacaatc ccagaaacta cgttccagac tgtttcttgg	1020
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ctggatgaaa acttcaaactg atgcttcaga gagttctgtt tcccaacccctc ttccaacatt	1140
gagcaacaaa actccactcg aattcgtcag aacactagag accacccctc cacggccaat	1200
acagtggata gaactaatca tcagaattat tatataattc atagatgtt ctgcaataacc	1245
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<210> 9
<211> 414
<212> PRT
<213> Homo Sapiens

<400> 9	15
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Asn Leu Ser His Leu Asp Gly Asn Leu Ser Asp Pro Cys Gly Pro Asn	
35 40 45	
Arg Thr Asp Leu Gly Gly Arg Asp Ser Leu Cys Pro Pro Thr Gly Ser	
50 55 60	
Pro Ser Met Ile Thr Ala Ile Thr Ile Met Ala Leu Tyr Ser Ile Val	
65 70 75 80	
Cys Val Val Gly Leu Phe Gly Asn Phe Leu Val Met Tyr Val Ile Val	
85 90 95	
Arg Tyr Thr Lys Met Lys Thr Ala Thr Asn Ile Tyr Ile Phe Asn Leu	
100 105 110	
Ala Leu Ala Asp Ala Leu Ala Thr Ser Thr Leu Pro Phe Gln Ser Val	
115 120 125	
Asn Tyr Leu Met Gly Thr Trp Pro Phe Gly Thr Ile Leu Cys Lys Ile	
130 135 140	
Val Ile Ser Ile Asp Tyr Tyr Asn Met Phe Thr Ser Ile Phe Thr Leu	

145	150	155	160
Cys Thr Met Ser Val Asp Arg Tyr Ile Ala Val Cys His Pro Val Lys			
165	170	175	
Ala Leu Asp Phe Arg Thr Pro Arg Asn Ala Lys Ile Ile Asn Val Cys			
180	185	190	
Asn Trp Ile Leu Ser Ser Ala Ile Gly Leu Pro Val Met Phe Met Ala			
195	200	205	
Thr Thr Lys Tyr Arg Gln Gly Ser Ile Asp Cys Thr Leu Thr Phe Ser			
210	215	220	
His Pro Thr Trp Tyr Trp Glu Asn Leu Leu Lys Ile Cys Val Phe Ile			
225	230	235	240
Phe Ala Phe Ile Met Pro Val Leu Ile Ile Thr Val Cys Tyr Gly Leu			
245	250	255	
Met Ile Leu Arg Leu Lys Ser Val Arg Met Leu Ser Gly Ser Lys Glu			
260	265	270	
Lys Asp Arg Asn Leu Arg Arg Ile Thr Arg Met Val Leu Val Val Val			
275	280	285	
Ala Val Phe Ile Val Cys Trp Thr Pro Ile His Ile Tyr Val Ile Ile			
290	295	300	
Lys Ala Leu Val Thr Ile Pro Glu Thr Thr Phe Gln Thr Val Ser Trp			
305	310	315	320
His Phe Cys Ile Ala Leu Gly Tyr Thr Asn Ser Cys Leu Asn Pro Val			
325	330	335	
Leu Tyr Ala Phe Leu Asp Glu Asn Phe Lys Arg Cys Phe Arg Glu Phe			
340	345	350	
Cys Ile Pro Thr Ser Ser Asn Ile Glu Gln Gln Asn Ser Thr Arg Ile			
355	360	365	
Arg Gln Asn Thr Arg Asp His Pro Ser Thr Ala Asn Thr Val Asp Arg			
370	375	380	
Thr Asn His Gln Asn Tyr Tyr Ile Ile His Arg Leu Cys Cys Asn Thr			
385	390	395	400
Pro Leu Ile Ser Gln Lys Pro Val Leu Leu Trp Phe Cys Asp			
405	410		

<210> 10
<211> 1239
<212> DNA
<213> Rattus norvegicus

<400> 10

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gaccatgcg gtccgaacctg	caccgacctg ggcgggagag	acagcctgtg ccctccgacc	180
ggcagtcct ccatgatcac	ggccatcacg atcatggccc	tctactccat cgtgtgcgtg	240
gtggggctct tcggaaactt	cctggtcatg tatgtgattt	tcagatacac caagatgaag	300
actgccacca acatctacat	tttcaacctt gctctggcag	atgccttagc caccagtacc	360
ctgccttcc agagtgtcaa	ttacctaattt ggaacatggc	catttggAAC catcctttgc	420
aagatagtga tctccataga	ttactataac atgttacca	gcattttcac cctctgcacc	480
atgagtgttgc atcgatacat	tgcagtctgc caccctgtca	aggccttaga tttccgtact	540
ccccgaaatg caaaaattat	caatgtctgc aactggatcc	tctcttcagc cattggcttt	600
cctgtaatgt tcatggctac	aacaaaatac aggcaaggaa	tttccgtact tacactaaca	660
ttctctcatc caacctggta	ctggaaaac ctgctgaaga	tctgtgtttt catctcgcc	720
ttcattatgc cagtgctcat	cattaccgtg tgctatggac	tgatgatctt ggcctcaag	780
agtgtccgca tgctctctgg	ctccaaagaa aaggacagga	atcttcgaag gatcaccagg	840
atggtgctgg tggtggtggc	tgtgttcatc gtctgctga	ctccccattca catttacgtc	900
atcattaaag ccttggttac	aatcccagaa actacgttcc	agactgtttc ttggcacttc	960
tgcattgctc taggttacac	aaacagctgc ctcaaccag	tcctttatgc atttctggat	1020

gaaaacttca aacgtatgctt cagagagttc tgtatccaa cctcttccaa cattgagcaa	1080
caaaaactcca ctcgaattcg tcagaacact agagaccacc cctccacggc caatacagtg	1140
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<210> 11
<211> 412
<212> PRT
<213> Rattus norvegicus

<400> 11	
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35 40 45	
Asp Leu Gly Gly Arg Asp Ser Leu Cys Pro Pro Thr Gly Ser Pro Ser	
50 55 60	
Met Ile Thr Ala Ile Thr Ile Met Ala Leu Tyr Ser Ile Val Cys Val	
65 70 75 80	
Val Gly Leu Phe Gly Asn Phe Leu Val Met Tyr Val Ile Val Arg Tyr	
85 90 95	
Thr Lys Met Lys Thr Ala Thr Asn Ile Tyr Ile Phe Asn Leu Ala Leu	
100 105 110	
Ala Asp Ala Leu Ala Thr Ser Thr Leu Pro Phe Gln Ser Val Asn Tyr	
115 120 125	
Leu Met Gly Thr Trp Pro Phe Gly Thr Ile Leu Cys Lys Ile Val Ile	
130 135 140	
Ser Ile Asp Tyr Tyr Asn Met Phe Thr Ser Ile Phe Thr Leu Cys Thr	
145 150 155 160	
Met Ser Val Asp Arg Tyr Ile Ala Val Cys His Pro Val Lys Ala Leu	
165 170 175	
Asp Phe Arg Thr Pro Arg Asn Ala Lys Ile Ile Asn Val Cys Asn Trp	
180 185 190	
Ile Leu Ser Ser Ala Ile Gly Leu Pro Val Met Phe Met Ala Thr Thr	
195 200 205	
Lys Tyr Arg Gln Gly Ser Ile Asp Cys Thr Leu Thr Phe Ser His Pro	
210 215 220	
Thr Trp Tyr Trp Glu Asn Leu Leu Lys Ile Cys Val Phe Ile Phe Ala	
225 230 235 240	
Phe Ile Met Pro Val Leu Ile Ile Thr Val Cys Tyr Gly Leu Met Ile	
245 250 255	
Leu Arg Leu Lys Ser Val Arg Met Leu Ser Gly Ser Lys Glu Lys Asp	
260 265 270	
Arg Asn Leu Arg Arg Ile Thr Arg Met Val Leu Val Val Val Ala Val	
275 280 285	
Phe Ile Val Cys Trp Thr Pro Ile His Ile Tyr Val Ile Ile Lys Ala	
290 295 300	
Leu Val Thr Ile Pro Glu Thr Thr Phe Gln Thr Val Ser Trp His Phe	
305 310 315 320	
Cys Ile Ala Leu Gly Tyr Thr Asn Ser Cys Leu Asn Pro Val Leu Tyr	
325 330 335	
Ala Phe Leu Asp Glu Asn Phe Lys Arg Cys Phe Arg Glu Phe Cys Ile	
340 345 350	
Pro Thr Ser Ser Asn Ile Glu Gln Gln Asn Ser Thr Arg Ile Arg Gln	
355 360 365	

Asn	Thr	Arg	Asp	His	Pro	Ser	Thr	Ala	Asn	Thr	Val	Asp	Arg	Thr	Asn
370															380
His	Gln	Asn	Tyr	Tyr	Ile	Ile	His	Arg	Leu	Cys	Cys	Asn	Thr	Pro	Leu
385															400
Ile	Ser	Gln	Lys	Pro	Val	Leu	Leu	Trp	Phe	Cys	Asp				
												405			410

<210> 12

<211> 2149

<212> DNA

<213> Homo Sapiens

<400> 12

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gaaaggaagc	ggctgaggcg	cttggAACCC	gaaaagtctc	ggctcctctg	gtcacccgc	180
acagcgggtc	ccgccccggcc	gtcagtagcca	tggacagcag	cgctgcccc	acgaacgcca	240
gcaattgcac	tgatgccttgc	gcgtactcaa	gttgcctccc	agcaccacgc	cccggttctt	300
gggtcaactt	gtcccactta	gatggcaacc	tgtccgaccc	atgcggtccg	aaccgcacccg	360
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tcacgatcat	ggccctctac	tccatcgtgt	gcgtgggg	gctcttcgga	aacttcctgg	480
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ataacatgtt	caccagcata	ttcacccctc	gcaccatgag	tgttgcata	tacattgcag	720
tctgccaccc	tgtcaaggcc	ttagatttcc	gtactccccg	aatgcacaa	attatcaatg	780
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aatacaggca	aggttccata	gattgtacac	taacattctc	tcatccaaacc	ttgtactggg	900
aaaacctgtct	gaagatctgt	gttttcatct	tcgccttc	tatgccatgt	ctcatcatta	960
ccgtgtgcta	tggactgatg	atcttgcgc	tcaagagtgt	ccgcatgctc	tctggctcca	1020
aagaaaagga	caggaatctt	cgaaggatca	ccaggatgg	gctgggtgg	gtggctgtgt	1080
tcatcgctg	ctggactccc	attcacattt	acgtcatcat	taaagccttgc	gttacaatcc	1140
cagaaaactac	gttccagact	gtttcttggc	acttctgc	tgtcttaggt	tacacaaaca	1200
gctgcctcaa	cccagtcc	tatgcatttgc	tggataaaa	cttccaaacga	tgcttcagag	1260
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acactagaga	ccacccctcc	acggccata	cagtggatag	aactaatcat	cagctagaaa	1380
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caagcttgc	agccaccatg	tatgtggaa	cagggttgc	caagaatgttgc	taggaggctc	1500
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aatattttatg	acctcaacaa	agaagaacca	tcttttgttgc	atttcaccgt	agtaacacat	1800
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tttgcaaggg	aatgaatcca	ttattcttgc	tttagacttttgc	aacttcaccc	taaaatttgc	1920
atcttggctaa	ggcatcatttgc	tcacccat	ttcttgg	tgtattgtttgc	aaaaaaaataa	1980
catcttgc	atcttagctcc	ataatttgc	gggaagagat	tagcatgaaa	ggtaatctgc	2040
aacacagtca	tgtgtcagct	gtagaaaggt	tgattctcat	gcactgcaaa	tacttccaaa	2100
gagtcatcat	gggggat	tttcattcttag	gctttcagtg	gtttgttcc		2149

<210> 13

<211> 1473

<212> DNA

<213> Homo Sapiens

<400> 13

gcagaggaga atgtcagatg ctcagctcg tccccctccgc ctgacgctcc tctctgtctc

60

agccaggact ggtttctgt	120
tgaggcgctt ggaaccgaa	180
cccggccgtc agtaccatgg	240
tgccttggcg tactcaagtt	300
ccacttagat ggcgacctgt	360
agacagcctg tgccctccaa	420
cctctactcc atcgtgtgcg	480
tgtcagatac accaagatga	540
agatgccta gccaccagta	600
gccatttggaa accatccctt	660
cagcatattc accctctgca	720
caaggccta gatcccgta	780
cctctcttca gccattgtc	840
ttccatagat tgtacactaa	900
gatctgtttt ttcatctcg	960
actgatgatc ttgcgcctca	1020
gaatcttcga aggatcacca	1080
gactccatt cacatttacg	1140
ccagactgtt tcttggcaact	1200
agtcttttat gcatttctgg	1260
aacctcttcc aacattgagc	1320
cccotccacg gccaatacag	1380
ggtatatcta ctggggatga	1440
tccattatag aggatgagaa	1473

<210> 14

<211> 28

<212> DNA

<213> Homo Sapiens

<220>

<223> Primer

<400> 14

ggtaactggga aaacctgctg aagatctg

28

<210> 15

<211> 28

<212> DNA

<213> Homo Sapiens

<220>

<223> Primer

<400> 15

ggtctctagt gttctgacga attcgagt

28

<210> 16

<211> 12

<212> PRT

<213> Homo Sapiens

<220>

<223> Peptide fragment

<400> 16

Leu Glu Asn Leu Glu Ala Glu Thr Ala Pro Leu Pro

1	5	10
<210> 17		
<211> 13		
<212> DNA		
<213> Homo Sapiens		
<400> 17		
atacaccaag atg		13
<210> 18		
<211> 453		
<212> DNA		
<213> Homo Sapiens		
<400> 18		
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<210> 19		
<211> 30		
<212> DNA		
<213> Homo Sapiens		
<220>		
<223> Primer		
<400> 19		
ggtaactggga aaacctgctg aagatctgtg		30
<210> 20		
<211> 27		
<212> DNA		
<213> Homo Sapiens		
<220>		
<223> Primer		
<400> 20		
catccatgac cacagtgggc aaggcac		27
<210> 21		
<211> 910		
<212> DNA		
<213> Homo Sapiens		
<220>		
<221> misc_feature		
<222> (1)...(910)		
<223> n = A,T,C or G		

<400> 21

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gcattgctct	aggtaacaca	aacagctgcc	tcaaccagt	cctttatgca	tttctggatg	180
aaaacttcaa	acgatgttcc	agagagttct	gtatccaaac	ctttccaaac	attgagcaac	240
aaaactccac	tcgaattcgt	cagaacacta	gagaccaccc	ctccacggcc	aatacagtgg	300
atagaactaa	tcatcaggta	cgcagtctct	agaatttagt	atatctactg	gggatgacat	360
aaaaattata	aggctttgt	ctaaactagg	agtttaatcc	attatagagg	atgagaatgg	420
aggaagggaa	agcaaattgt	ggtttaaggg	ttaaagaaga	ggtttgtata	taaactgggg	480
tcctttaaat	ttgcctgtac	atattcatta	aggttaagg	atccccaaatg	gnaaaaacca	540
tggaacttt	caaaaatacct	tttttatggc	ctttactttt	atgcaaaaatt	tatgacttta	600
gcacattata	gaaataattc	tgatctagaa	tcctttcat	tttccccaga	attattatat	660
aattcataga	tgttctgcaa	taccccttctt	atttctcaaa	agccagtctt	gctctggttt	720
ctggattaaa	gagagagggt	gagtgccttg	cccactgtgg	tcatggatgc	aagatattca	780
cagaaaatta	gcatcataga	aaaaaaaaannn	aaaaaaaaaa	aaaaaaaaanc	atgtcgcccg	840
cctcggccaa	acatcggtc	gagcatgcat	ctagggcggc	caattccgccc	cctctcccc	900
ccngcnnttt						910

<210> 22

<211> 225

<212> DNA

<213> Homo Sapiens

<220>

<221> misc_feature

<222> (1)...(225)

<223> n = A,T,C or G

<400> 22

ggaagggaaa	gcaaattgtg	gtttaagggt	taaagaagag	gtttgtatat	aaactgggg	60
cctttaatt	ttgcctgtaca	tattcattaa	ggtttaagga	tccccatgg	gnaaaaccat	120
ggaactttc	aaaataacct	ttttatggcc	tttacttttta	tgcaaaaattt	atgactttag	180
cacattatag	aaataattct	gatctagaat	ccttttcatt	ttccc		225

<210> 23

<211> 1670

<212> DNA

<213> Homo Sapiens

<220>

<221> misc_feature

<222> (1)...(1670)

<223> n = A,T,C or G

<400> 23

atacaccaag	atgaagactg	ccaccaacat	ctacatttc	aaccttgctc	tggcagatgc	60
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tggAACCATC	ctttgcaaga	tagtgcattc	catagattac	tataacatgt	tcaccagcat	180
attcacccctc	tgcaccatga	gtgttgcattc	atacatgc	gtctgccacc	ctgtcaaggc	240
cttagatttc	cgtactcccc	gaaatgccaa	aattatcaat	gtctgcaact	ggatcctctc	300
ttcagccatt	ggtcttcctg	taatgttcat	agctacaaca	aaatacaggc	aagggtccat	360
agattgtaca	ctaacattct	ctcatccaaac	ctggtaactgg	gaaaacctgc	tgaagatctg	420
tgttttcattc	ttcgccctca	ttatgccatg	gctcatcatt	accgtgtgct	atggactgat	480
gatcttgcgc	ctcaagagtg	tccgcattgc	ctctggctcc	aaagaaaagg	acaggaatct	540
tcgaaggatc	accaggatgg	tgctgggtgg	ggtggctgtg	ttcatcgct	gctggactcc	600
cattcacatt	tacgtcatca	ttaaagcctt	ggttacaatc	ccagaaacta	cgttccagac	660
tgtttcttgg	cacttctgca	ttgtctctagg	ttacacaac	agctgcctca	acccagtcct	720

ttatgcattt	ctggatgaaa	acttcaaacg	atgcttcaga	gagttctgt	tcccaacctc	780
ttccaacatt	gagcaacaaa	actccactcg	aattcgtcg	aacaactagag	accacccctc	840
cacggccaat	acagtggata	gaactaatca	tcaggtacgc	agtctctaga	attaggatata	900
tctactgggg	atgacataaa	aattataagg	ctttagtgc	aactaggagt	ttaatccatt	960
atagaggatg	agaatggagg	gaagggaaag	caaattgtgg	tttaagggtt	aaagaagagg	1020
tttgatata	aactgggtc	ctttaaattt	gcctgtacat	attcattaag	gtttaaggat	1080
ccccaatggg	naaaaccatg	gaactttca	aaatacctt	tttatggcct	ttactttat	1140
gcaaaaattt	tgactttgc	acattataga	aataattctg	atctagaatc	cttttcattt	1200
tccccagaat	tattatataa	ttcatagatg	ttctgcata	ccccccttat	ttctaaaaag	1260
ccagtctgc	tctggtttct	ggattaaaga	gagaggggtga	gtgccttgcc	cactgtggc	1320
atggatgcaa	gatattcaca	gaaaatttagc	atcatagaaa	aaaaannnaa	aaaaaaaaaa	1380
aaaaaancat	gtcggccgccc	tcggccaaac	atcgggtcga	gcatgcac	agggcggcca	1440
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ccagcggAAC	caaaaaccat	cgtggatgt	gaatcgaagt	catcataaaa	ggtgaccctt	1560
ctgtctgtaa	gatttttaatt	taagcatata	tttatgacct	caacaaagac	gaaccatctt	1620
ttgttaattc	accgttagtaa	cacataaaagt	tatgctac	ctgtacaaag		1670

<210> 24
<211> 25
<212> DNA
<213> Homo Sapiens

<220>
<223> Primer

<400> 24
gaatcctttt cattttcccc agaat

25

<210> 25
<211> 23
<212> DNA
<213> Homo Sapiens

<220>
<223> Primer

<400> 25
aaccagagca agactggctt ttg

23

<210> 26
<211> 39
<212> DNA
<213> Homo Sapiens

<220>
<223> Primer

<400> 26
ataattcata gatgttgctg caataccctt cttatttct

39

<210> 27
<211> 20
<212> DNA
<213> Artificial Sequence

<220>
<223> Artificial

<400> 27
aggtcgtgta ctgtcagtc 20

<210> 28
<211> 20
<212> DNA
<213> Artificial Sequence

<220>
<223> Artificial

<400> 28
acgtggtgaa ctgccagtga 20

<210> 29
<211> 5
<212> PRT
<213> Artificial Sequence /

<220>
<223> Opioid polypeptide

<221> VARIANT
<222> 2
<223> Xaa = D-Alanine

<221> VARIANT
<222> 4
<223> Xaa = N-methylphenylalanine

<221> VARIANT
<222> 5
<223> Xaa = Gly(ol)

<400> 29
Tyr Xaa Gly Xaa Xaa
1 5